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 .	Application No.	Applicant(s)	m
Notice of Allowability	10/633,061	PATEL ET AL.	
	Examiner	Art Unit	
	Daniel I. Walsh	2876	
The MAILING DATE of this communication appears All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313 1. This communication is responsive to 11-29-05. 2. The allowed claim(s) is/are 1-8 and 10-30. 3. Acknowledgment is made of a claim for foreign priority unally All by Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority documents have 1. International Bureau (PCT Rule 17.2(a)).	ears on the cover sheet with (OR REMAINS) CLOSED in (OR REMAINS) CLOSED in (OR REMAINS) CLOSED in (OR REMAINS) and the appropriate community of the community o	th the correspondence address In this application. If not included unication will be mailed in due coubject to withdrawal from issue for (f).	Durse. THIS at the initiative
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submit to the complete of the complet	IENT of this application. itted. Note the attached EXA	MINER'S AMENDMENT or NO	
INFORMAL PATENT APPLICATION (PTO-152) which give 5. CORRECTED DRAWINGS (as "replacement sheets") must		declaration is deficient.	
(a) ☐ including changes required by the Notice of Draftspers		(PTO-948) attached	
1) hereto or 2) to Paper No./Mail Date	_	() () () () () () ()	
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date		in the Office action of	
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t	.84(c)) should be written on th he header according to 37 CFI	e drawings in the front (not the b R 1.121(d).	ack) of
 DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT 	sit of BIOLOGICAL MATE FOR THE DEPOSIT OF BIO	ERIAL must be submitted. No DLOGICAL MATERIAL.	te the
Attachment(s) 1. ☑ Notice of References Cited (PTO-892)	5. □ Notice of Inf	ormal Patent Application (PTO-	152)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)		ımmary (PTO-413),	,
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/0	Paper No.//	Mail Date Amendment/Comment	
Paper No./Mail Date 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. ⊠ Examiner's 9. □ Other	Statement of Reasons for Allow	ance
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Page 2

Art Unit: 2876 D. Walsh

DETAILED ACTION

1. Receipt is acknowledged of the Response received on 29 November 2005.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with George Likourezos on 7 December 2005.

The application has been amended as follows:

Re claim 1, line 6: Replace "provided on a substrate" with -- provided on a substrate including portions for placement of the image sensor and the illumination assembly, wherein the image sensor and the illumination assembly are substantially flush with an outer surface of the substrate upon placement within their respective portions --.

Re claim 9: Cancel claim 9.

Re claim 12, line 8: Replace "imagine engine, and" with - imaging engine, an imaging sensor in operative communication with said interface, and an illumination assembly including at least one illuminating device, wherein the image sensor and the illumination assembly are provided on a single substrate and are substantially flush with an outer surface of the substrate --.

Art Unit: 2876 D. Walsh

Re claim 16, line 2: Replace "at least one image sensor and a targeting assembly, said at least one" with – a targeting assembly, said --.

Re claim 18, line 5: Replace "reader;" with – reader, said plug-and-play imaging engine further having an image sensor and an illumination assembly provided on a single substrate and being substantially flush with an outer surface of the substrate;

Re claim 19, line 2: Replace "an illumination assembly" with -- the illumination assembly --.

Re claim 20, line 2: Replace "from" with -- form --.

Re claim 21, line 6: Replace "respective substrates," with -- respective substrates, at least one of said at least two plug-and-play imaging engines having an illumination assembly and an image sensor provided on its respective substrate, the imaging sensor and the illumination assembly being substantially flush with an outer surface of the respective substrate, --

Re claim 22, line 1: Replace "each of said at least two...having" with -- the illumination assembly of said at least one of the at least two imaging engines has at least one illuminating device --.

Re claim 23, line 12: Replace "imagine engine." with – imaging engine, at least one of the first and second plug-and-play imaging engines has an image sensor and an illumination assembly provided on a single substrate, the imaging sensor and the illumination assembly being substantially flush with an outer surface of the substrate. --

Re claim 27, line 6. Replace "device substantially" with -- device, wherein the at least one illumination device and the image sensor are substantially --.

Application/Control Number: 10/633,061 Page 4

Art Unit: 2876 D. Walsh

Allowable Subject Matter

3. Claims 1-8 and 10-30 are allowed.

4. The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach a plug and play imaging as set forth in the claims, including that the imaging engine has an image sensor and an illumination assembly together being substantially flush with an outer surface of the substrate they are on. The Examiner notes that the prior art to Lucera et al. (US 6,874,690) as cited in the previous action teaches a removable laser based scanner, and therefore does not teach a plug and play imaging engine. Correa et al. (US 6,340,114) teaches an imaging engine, but is silent to the image sensor and illumination assembly being provided on a single substrate and flush with the substrate. The Examiner has interpreted plug and play as permitting the imaging engine to be inserted into an optical code reader that is able to accept an engine, and not requiring any reconfiguration in order to be used (hence "plug and play").

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Correa et al. (US 6,340,114).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel I. Walsh whose telephone number is (571) 272-2409. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel I Walsh

Examiner Art Unit 2876

12-7-05

KARL D. FRECH PRIMARY EXAMINER